



#6145  
8/2/01

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : Ágúst Valfells  
SERIAL NO : 09/338,827  
FILED : June 23, 1999  
TITLE : DISPOSAL OF RADIATION WASTE IN  
GLACIAL ICE  
Grp./A.U. : 1754  
Examiner : Nave, E.  
Conf. No. : 1852  
Docket No. : P039933US0

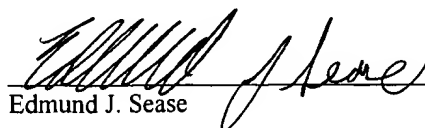
DECLARATION OF ÁGÚST VALFELLS

1. I am the inventor of the above-identified patent application.
2. I submitted a paper concerning my idea, design of capsule, its composition and configuration to the Congress of the World Energy Council. It was accepted and presented at the Houston, September 1998 meeting and published in the proceedings of the meeting.
3. I state further that the method of placing the composite on the ice cap and having it melt its way down is a function of the design as set forth in the claims of my patent application.
4. As one of at least ordinary skill in this art, I feel the primary features of novelty and non-obvious are:

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CERTIFICATE OF MAILING (37 C.F.R. § 1.8(a))

I hereby certify that this document and the documents referred to as enclosed therein are being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on this 30th day of July, 2001.

  
Edmund J. Sease

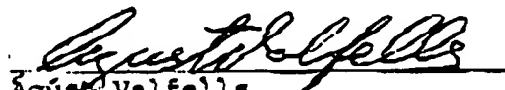
(a) The composition and size of the core matrix, i.e. the fission products (apart from Xenon and Krypton, which are separately handled by storage and reprocessing) embedded in a metal matrix to provide sufficient thermal conduction to prevent the matrix from melting as a result of the decay heat of the fission products, when in contact with the inner surface of the capsule.

(b) The material and the thickness of the capsule walls so as to provide adequate radiation shielding and at the same time adequate thermal conduction to conduct heat away from the core matrix sufficiently well to keep its core within the established temperature limits, i.e. to prevent overheating of the core matrix as well as corrosion of the capsule surfaces (inside and outside) because of excessive temperatures and yet melt the ice. (The thicker the shield, the better the radiation shielding but the greater the temperature gradient from the center of the sphere to its outside surface, so these two effects must be balanced.)

(c) The overall methodology, which is a first as far as I am aware.

I, Agust Valfells, declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on this 27<sup>th</sup> day of July, 2001.

  
Agust Valfells